

LED Lighting

Savings We Will Reinvest

Caltrans is committed to “green” building practices and reducing energy in its state-owned buildings. Executive Order B-18-12 requires state agencies to reduce grid-based energy purchases for state-owned buildings by at least 20 percent by 2018. The executive order also requires state agencies to “purchase and use environmentally preferable products that have a lesser or reduced effect on human health and the environment.” That’s why Caltrans replaced fluorescent light bulbs in its Sacramento headquarters building with new LED tubes that will help us meet the governor’s executive order of saving energy — and taxpayer money.

Caltrans spends about \$485,000 a year in energy for its headquarters building alone. The Sacramento Municipal Utility District (SMUD) estimated that replacing the old 4-foot fluorescent light tubes with LED tubes will save at least \$41,000 — or 8.5 percent — a year in energy costs. The LED tube replacement project cost about \$305,000. In January 2015, SMUD gave Caltrans a \$135,000 rebate for its purchase of the new LED tubes. The lights should pay for themselves with cost savings in less than four years.

LED Safer, Cheaper and Environmentally Friendly

The Caltrans headquarters building is about 450,000 square feet. It was first constructed in 1936 with additional buildings added in the 1950s and 60s. Most of our lighting fixtures use fluorescent lights. Fluorescent light tubes are made of glass and contain mercury. If the glass tubes break, people can be exposed to illness or injury. As of 2012, federal law no longer allows U.S. companies to make or import fluorescent light tubes. When existing supplies are gone, they will no longer be available.



Director Malcolm Dougherty accepts a rebate check from SMUD Board President Rob Kerth.

LED tubes are unbreakable, fit in the existing sockets and reduce energy use from 40 watts per fluorescent tube to 17 and don’t have to be replaced as often as fluorescents. The LED tubes are also guaranteed for five years and all of the parts can be safely recycled.

The LED tubes used in this project were manufactured in California and were purchased through a certified woman-owned small business.

The Next Phase

While the SMUD rebate only applied to the 4-foot, more predominant fluorescent lighting, Caltrans has begun a cost analysis on replacing the 2-foot and 8-foot fluorescent tubes, which may require some rewiring or replacing of fixtures. Efforts to retrofit Caltrans-owned office buildings across the state are ongoing. Our goal is to retrofit all of our light tubes in a safe, sustainable, and cost-efficient way.

Source: The Division of Business, Facilities and Security